

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph 20, page 5, of the specification as follows:

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[0020] According to an aspect of the invention, the rubber is a natural-rubber such as NBR-
Acrylonitrile Acrylic Nitric Butadiene Rubber rubber.

Please amend paragraph 33, page 7 as follows:

[0033] A polymer of the present invention used in the polymer-type humidity sensor is fabricated by utilizing the cross-linking reaction of hydrophilic polymeric materials with hydrophobic polymeric materials. More specifically, the polymer of the present invention is prepared from a rubber or a natural rubber compound that is improved in electrical conductivity. The specific formulation is characterized by the need of the application, such as one suitable for use in microwave oven with superior linearity of sensing properties. For example, a polymer-type humidity sensor device 200 according to the present invention may have a resistance range from 500 k Ω to 2 M Ω , resulting from the composition comprising a natural-rubber (NBR-Acrylonitrile Butadiene Rubber Acrylic-Nitric butadiene rubber) and carbon. For a specific use such as a microwave oven; a polymer-type humidity sensor 200 is characterized in that the composition comprises carbon in an amount of 15-20% \pm 5% by volume of the polymer structure.

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